Application No. 10/700,556   Docket No.: 0941-0862P
Amendment dated December 4, 2006
Reply to Office Action of September 7, 2006

AMENDMENTS TO THE DRAWINGS

Attached hereto is one (1) sheet of corrected drawings that comply with the provisions of

37 C.F.R. § 1.84. The corrected drawings incorporate the following drawing changes:

In Fig. 3, the text in boxes 31, 32, 33 and 36 has been revised for clarity.

It is respectfully requested that the corrected drawings be approved and made a part of

the record of the above-identified application.

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REMARKS

Claims 1-12 are now present in the application.

The specification and claims 1-4, 6-10 and 12 have been amended, and claim 13 has been presented. Reconsideration of the application, as amended, is respectfully requested.

Rejections under 35 USC 102 and 103

Claims 1, 3-4, 6-8 and 10 stand rejected under 35 USC 102(e) as being anticipated by Oh, U.S. Patent 6,515,951. This rejection is respectfully traversed.

Claims 2 and 9 stand rejected under 35 USC 103 as being unpatentable over Oh in view of Johnston, U.S. Patent 5,831,613. This rejection is respectfully traversed.

Claims 5 and 12 stand rejected under 35 USC 103 as being unpatentable over Oh in view of the Applicant's Admitted Prior Art. This rejection is respectfully traversed.

Claim 11 stands rejected under 35 USC 103 as being unpatentable over Oh. This rejection is respectfully traversed.

It is noted that the Examiner has also indicated that claim 13 stands rejected under 35 USC 102(e). However, no claim 13 was present in this application at the time the Office Action was mailed, and it is therefore believed that this is an error on the part of the Examiner.

Anticipation requires identity of the claimed process and a process of the prior art. The claimed process, including each step thereof, must have been described or embodied, either expressly or inherently, in a single reference. See, e.g., Glaverbel S.A. v. Northlake Mkt'g & Supp., Inc., 45 F.3d 1550, 33 USPQ 2d 1496 (Fed. Cir. 1995).

In order for a claim to be properly rejected under 35 U.S.C. §103, the teachings of the

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prior art reference must suggest all features of the claimed invention to one of ordinary skill in

the art. See, e.g., In re Dow Chemical, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988);

In re Keller, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

Independent Claim 1

Independent claim 1 is directed to a method of opening/closing a disk tray in a disk drive.

When opening or closing of the disk tray is requested, a first load/unload command is sent to the

disk drive and a a time value that corresponds to a time point of sending the first command is

recorded. A value returned by the disk drive for the first load/unload command is received, and a

clock value that corresponds to a time point of receiving the returned value is recorded. A period

of time is then calculated from the sending of the first load/unload command to the receiving of

the returned value.

Oh discloses a disk ejecting method for driving a disk ejecting motor for a predetermined

time irrespective of the output status of a sensor detecting disk ejection when a disk ejection

request is received. With reference to column 3, lines 31-40, "To complete the disk ejection

requested by a normal or an emergent ejection command, the microcomputer 30 checks the

output state of the sensor 2 (S30) after 1.5-second driving of the motor 11 is done (S20) . If the

output state of the sensor 2 is HIGH, the microcomputer 30 stops driving the motor 11 (S31),

otherwise, it continues to drive the motor 11 for more 0.5 seconds (S32). The operations S30 and

S32 are repeated by the microcomputer 30 until the output signal of the sensor 2 is changed to

HIGH.". In other words, the method according to Oh determines whether to drive the motor

according to the output state of a sensor (i.e., sensor 2) detecting disk ejection, and not the time

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period the disk drive takes to respond to the ejection command. The 1.5 second time period in

Oh is a predetermined time. Accordingly, Oh is silent with regard to calculating a period of time

from the sending of the first load/unload command to the receiving of the returned value, as is

disclosed in independent claim 1.

The patent Johnston simply discloses detection of CD instead of calculating a period of

time from the sending of the first load/unload command to the receiving of the returned value.

Therefore, Johnston fails to overcome the above-noted deficiencies of Oh in connection with

independent claim 1.

The dependent claims set forth features which are additionally allowable over the prior

art of record. For example, claim 3 is directed to a method as claimed in claim 1, wherein, when

opening or closing of the disk tray is requested, a first load/unload command is sent to the disk

drive to trigger an operation of opening or closing the disk tray and, when the calculated period

of time is smaller than or equal to a threshold period, a second unload/load command is sent to

the disk drive to reverse the operation triggered by the first load/unload command.

As is discussed in the background of the present application, two successive load/unload

commands trigger different operations. Specifically, when a first load/unload command is sent

to open a disk tray, the second unload/load command is sent, following the first one, to close the

disk tray. Conversely, when a first load/unload command is sent to close a disk tray, the second

unload/load command is sent following the first one, to open the disk tray.

According to steps (S31) and (S32) of Oh, the method stops driving the motor 11 (S31)

or continues to drive the motor 11 for 0.5 more seconds (S32) according to the output state of

sensor 2, but does not identify the response time (corresponding to the calculated time period in

claim 1 of the present invention) of a disk drive to reverse the motor. Oh is silent with regard to

successive transmission of load/unload commands based on the calculated period. Specifically,

Oh does not disclose sending a second load/unload command to the disk drive to reverse the

operation triggered by the first load/unload command, as is recited in claim 3 of the present

application.

Additionally, Johnston does not disclose sending a second unload/load command to the

disk drive to reverse the operation triggered by the first load/unload command based on the

calculated period as is recited in claim 3. Therefore, Johnston fails to overcome the above-noted

deficiencies of Oh in connection with claim 3.

In view of the foregoing amendments and remarks, it is respectfully submitted that the

prior art utilized by the Examiner fails to teach or suggest the method of independent claim 1 and

its dependent claims.

Independent Claim 8

Independent claim 8 is directed to a method wherein, when opening or closing of the disk

tray is requested, a first load/unload command is sent to the disk drive and a value returned by

the disk drive for the first load/unload command is received. A time period is calculated from the

sending of the first load/unload command to the receiving of the returned value, and a second

unload/load command is sent to the disk drive when the calculated time period is shorter than a

threshold.

As discussed above, Oh and Johnston do not teach or suggest sending a second

unload/load command to the disk drive to reverse the operation triggered by the first load/unload

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command based on the calculated time period, as is disclosed in independent claim 8 of the

present application.

In view of the foregoing amendments and remarks, it is respectfully submitted that the

prior art utilized by the Examiner fails to teach or suggest the method of independent claim 8 and

its dependent claims.

Summary

In view of the foregoing amendments and remarks, it is respectfully submitted that the

prior art utilized by the Examiner fails to teach or suggest the method of independent claims 1

and 8, as well as their dependent claims. Reconsideration and with

Newly Presented Claims

It is noted that newly presented claim 13 depends on claim 8 and, in view of the

foregoing amendments and remarks, should therefore be allowable based on its dependency

therefrom.

Conclusion

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

Because the additional prior art cited by the Examiner has been included merely to show

the state of the prior art and has not been utilized to reject the claims, no further comments

concerning this document are considered necessary at this time.

In the event that any outstanding matters remain in this application, the Examiner is

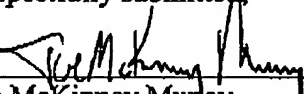invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

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     If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies,

to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional

fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: December 4, 2006   Respectfully submitted,

                                                  By _____
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Attachments

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